

## REFERENCES

- ANTRAM, C.B. (1924): Butterflies of India. Calcutta & Simla.  
 D'ABRERA, B. (1982): Butterflies of the Oriental Region. Part I, Hill House, Australia, pp. 160.  
 SATYAMURTI, S.T. (1966): Descriptive Catalogue of the Butterflies in the Collection of the Madras Government Museum. Commissioner of Museums, Govt. of Tamil Nadu, p. 43.  
 TALBOT, G. (1939): The Fauna of British India, Butterflies. Vol. I. Taylor and Francis, London, pp. 389.  
 WYNTER-BLYTH, M.A. (1957): Butterflies of the Indian Region. Bombay Natural History Society, Bombay, p. 426.

## 25. NEW RECORDS OF PLANTS FOR INDIA

During the course of studies on Flora of Sikkim, six interesting collections were recorded, which were compared with the type specimens housed in CAL, BM & K herbaria, and identified. They turned out to be new records for the Flora of India. Brief taxonomic accounts are provided to facilitate their identification in the field.

1. *Berberis tsarica* Ahrendt in J. Bot. Lond. lxxix, suppl. 48.1941. (Berberidaceae). Deciduous shrubs, upto 1m tall. Stems angular, densely spiny, spines mostly 5-fid, internodes *ca* 7 mm. Leaves oblanceolate, 7-15 x 2.5 - 4.5 mm, obtuse mucronate at apices, margins entire or with a few spinose teeth. Flowers solitary; pedicels 3-10 mm long. Sepals elliptic, 4-5 x 3 mm. Petals obovate, *ca* 4 x 2.5 mm, apices emarginate. Stamens 2.5 - 3 mm long. Berries broadly ellipsoid, 8-10 x 5-7 mm, red.

**Fl. & Fr.:** Aug.-Sept.

**Specimens examined:** Sikkim, s.l., Cave 530 (E?): Momay-Samdong, 15000 ft, Cave 40/47 (E!).

2. *Carex montis-everestii* Kuekenth. in Kew Bull. 1934:261.1934.

(Cyperaceae). Perennial rhizomatous herbs. Culms upto 15 cm high, subterete. Leaf-sheaths reddish-brown at base, persistent. Leaves basal, upto 7 x 0.15 cm, erect. Inflorescence consists of 2-3 spikes; terminal spike male or gynandrous, narrowly ellipsoid, borne on suberect, 0.5 - cm long peduncles; lower spikes female, broadly cylindrical, *ca* 1.2 x 0.8 cm, produced on pendant, filiform peduncles, Lowest bracts filiform, shorter than inflorescence. Utricles elliptic, *ca* 4.5 x 1 mm, glabrous, shining, reddish-chestnut above, pale beneath, minutely notched at the orifice; beakless. Stigmas 3. Female glumes

oblanceolate, up to 5.5 x 2 mm, acute, dark reddish-brown. Male glumes upto 6 x 1.2 mm.

**Fl. & Fr.:** July-Aug.

**Specimens examined:** Lhonak, 15000 ft, Smith & Cave 1879, 2155 (CAL!).

3. *Carex pseudofortida* Kuekenth. ssp. *afghanica* Kukkonen in Ann. Bot. Fennici 21:384.1984. (Cyperaceae). Perennial herbs up to 2.5 m high, rather gracile. Rhizomes stoloniferous. Culms obtusely trigonous, 1-1.8 mm in diam., smooth or occasionally scabrid above. Leaves folded or involute, rarely flat, 1.5 - 3 mm wide. Inflorescence a rather compact head, 10-15 x 7-12 mm; bracts shorter than apices; glumes 2.8 - 4.1 x 1.5 - 2 mm, scabrous. Utricles 3-4 x 1.2 - 1.8 mm, beaked, more or less inflated, obscurely nerved.

**Fl. & Fr.:** July-Aug.

**Specimens examined:** Sikkim, s.l., Raju et al. 8060, 8063 (BSHC!); Above Llohank, 4780 m, KEKE dt. 1989 (E!).

4. *Xanthosoma brasiliense* Engl., Pflanzenr. Arac. - Cococas. 58.1920.

(Araceae). Stemless herbs. Leaf-blades hastate, up to 48 x 15 cm, veins of basal lobes exposed for *ca* 1 cm; intramarginal veins conspicuous; petioles up to 40 cm long. Spadix with appendix. Ovary 2-4 locules, with numerous ovules; stylar discs coherent between adjacent female flowers.

**Fl. & Fr.:** Sept.-Oct.

**Specimen examined:** Gangtok, *ca* 11 km in north on Gangtok - Kabri road, *ca* 1700 m, ESIK s.n. (BSHC!. E!).

**Notes:** A native of tropical America; now almost naturalised in Sikkim upto 1700 m to Peshok and Mungpo areas of Darjeeling district of West

Bengal.

5. *Sorosseris hookeriana* (Clarke) Stebbins in Mem. Torr. Bot. Club. 19, 3: 45.1940 *Crepis hookeriana* Clarke, Comp. Ind. 255.1876.

(Asteraceae). Dwarf perennial herbs. Leaves oblong to lanceolate, shallowly lobed, toothed or entire. Flowering stems 3-10 cm high. Inflorescence compact, almost stalkless, of many yellow flowered-heads and a rosette of narrow leaves. Ray-florets 4, oblong, 1 - 1.7 cm, conspicuously 5-toothed at apex; involucre bracts linear, blunt, woolly at base, almost glabrous towards apex.

**Fl. & Fr.:** July-Sept.

**Specimens examined:** Katao, ca 4800m, R.C. Srivastava, s.n. dt. Sept. 1989 (BSHC).

**Notes:** Rao *et al.* (1988) recognised the occurrence of only one species viz. *Sorosseris deasyi* (S. Moore) Stebbins in India. However, the identity of the present collection was confirmed by Dr. C. Jeffrey, Royal Botanic Gardens, Kew.

6. *Zephyranthes candida* Herb. in Bot. Mag.t. 2607.1826.

Herbs. Bulbs ca 2.5 cm in diam., with prominent neck. Leaves linear, upto 30 cm long, present during flowering. Flowers white, perianth

ca 5 cm long, without tube, segments obtuse or short acute, upto 1.2 cm wide. Stamens much shorter than the segments; styles somewhat exceeding stamens; stigma slightly 3-notched.

**Fl. & Fr.:** Aug.

**Specimen examined:** Gangtok, ca 1750 m, R.C. Srivastava, s.n. dt. July 1992 (BSHC!).

**Notes:** Probably an escape but now almost naturalised. Not known so far from India (*cf.* Karthik. *et al.* 1989).

#### Acknowledgements

I am grateful to the Director, BSI and Regius Keepers, Royal Botanic Gardens, KEW and RBG, Edinburgh for facilities; to INSA, New Delhi and The Royal Soc., London for grant of fellowship to visit British Herbaria; and to Drs. P. Cribb and D.A. Simpson, RBG, Kew and Mr. H.J. Noltie of RBG, Edinburgh for their help during the visit to their herbaria.

September 8, 1995

R.C. SRIVASTAVA  
Botanical Survey of India,  
Allahabad-211002.

#### REFERENCES

Karthikeyan, S., S.K. Jain, M.P. Nayar & M. Sanjappa (1989): *Florae Indicae Enumeratio: Monocotyledonae*, Calcutta.

Rao, R.R., H.J. Chowdhury, P.K. Hajra, S. Kumar, P.C. Pant, B.D. Naithani, B.P. Uniyal, R. Mathur & S.K. Mamgain (1988) *Florae Indicae Enumeratio: Asteraceae*, Calcutta.

### 26. A NEW RECORD FOR FLORA OF INDIA FROM SIKKIM

During the course of studies on Flora of Sikkim, we came across an interesting collection which was later identified as *Berberis everestiana* Ahrendt var. *ventosa* Ahrendt. This taxon has not been recorded from India so far. Hence, a brief description with data on distribution, flowering/fruiting period etc. is provided.

*Berberis everestiana* Ahrendt var. *ventosa* Ahrendt, J. Linn. Soc. (Bot.) 57:117.1961.

Small shrubs. Stems very sulcate; shoots reddish; pale yellow with age. Internodes 5-12 mm.

Spines 3(-5)-fid, 5-12 mm. Leaves obovate, 5-15 x 3-8 mm, entire or with margins with 2-3 spinose serrations. Flowers solitary. Pedicels 5-8 mm long. Outer sepals ovate-elliptic, ca 6 x 3 mm, subacute; inner sepals obovate, 7.5 x 4.5 mm. Petals ca 6 x 3 mm, subacute; inner sepals obovate 7.5 x 4.5 mm. Petals ca 6 x 3 mm. Stamens ca 4 mm, produced, apiculate. Berries oblong-ovoid, ca 7 x 4 mm.

**Fl. & Fr.:** June-Sept.

**Distrib.:** Nepal, India (Sikkim)

**Specimens examined:** North Sikkim district: